

News Briefs . . . . . 2	Conversations with Sir Arthur . . 3
Special Events Calendar . . . . . 2	Run/Walk for cancer research . . 4
Software architects selected . . . 2	Passings, Retirees, Letters . . . 4
Reward & Recognition . . . . . 2	Classifieds . . . . . 4

## Lab names new deputy director

Air Force general to succeed Dumas

**a**n Air Force general who leads one of the United States' largest organizations responsible for developing and fielding military space missions has been selected to become deputy director of JPL.

Lt. Gen. Eugene Tattini, 58, commander of the Space and Missile Systems Center at Los Angeles Air Force Base, will join JPL in early July, announced JPL Director Dr. Charles Elachi. Tattini will succeed Larry Dumas, who is retiring after serving as deputy director for the past nine years.

"Gene Tattini's extensive experience and accomplishments in managing the development and deployment of space systems make him a superb choice to help lead the Laboratory into the new century," Elachi said. "He brings to JPL a keen management ability and great depth in working with the aerospace community."

Tattini, who in moving to the Laboratory will retire from the Air Force after nearly 36 years of service, has spent a total of 12 years at the Space and Missile Systems Center managing the research, design, development and acquisition of launch systems and satellites.

"This is a natural transition for me," Tattini said. "Military space and civil space have many similarities, and the business practices, management and engineering are essentially the same."

"Gene emerged very clearly and early as a great match for JPL," said Dr. William Jenkins, Caltech's executive vice president for

administration who led the nationwide search to fill the position. "He stood out not only in his skills and experience, but in his values—his non-bureaucratic, commonsense approach to management and leadership."

After assessing numerous candidates, a search committee interviewed and unanimously recommended Tattini for the position, Elachi noted. To allow a broad assessment of the candidates, Tattini was next interviewed by a group of employees (Mary Bothwell, Leslie Livesay, Chad Edwards and David Atkinson), by Tom Gavin, Deputy Director Larry Dumas, Caltech President Dr. David Baltimore and Elachi.

After a transition period that is still being finalized, Tattini will succeed Dumas as deputy director sometime in August. "I look forward to introducing him to you in the near future, for I know that upon meeting him, you will be as excited about this appointment as all of us were on the search committee," Elachi said.

Born in Madison, Wisconsin, Tattini graduated from Hampton (Virginia) High School in 1961. A distinguished graduate of the Reserve Officer Training Corps program at the University of Illinois, he entered the Air Force as a second lieutenant in 1965. During his Air Force career, he has served in various space, acquisitions and logistics assignments.



Eugene Tattini

Tattini holds a bachelor's degree in industrial management from the University of Illinois and a master's degree in business administration from Oklahoma City University. His major Air Force awards and decorations include the Distinguished Service Medal, the Legion of Merit with oak leaf cluster, the Meritorious Service Medal with three oak leaf clusters, the Air Force Commendation Medal and the Humanitarian Service Medal.

Tattini and his wife, Jene, have two grown daughters.

## Record crowds for Lab's open house

62,500 pack JPL for two-day showcase

Visitors to JPL's Open House May 19 and 20 enjoyed a variety of exhibits and activities, as evidenced in this sample of photos. Clockwise, from near right: one of the telescopes provided by the Telescopes In Education Project; a number of experimental rovers in the Mars Yard; students from Tehachapi High School who worked with JPL engineers for a robotics competition explain the machines to younger kids; an eight-wheeled rover rolls over a family; Christine Johnson of Mars outreach discusses Mars Odyssey with a visitor; and kids have fun at the Child Educational Center's booth.



Open House

2001

JPL 2001  
A Space Odyssey



# News Briefs



The cratered surface of Callisto as previously imaged by Galileo. The spacecraft was scheduled to fly by the Jovian moon again on May 25.



### Galileo Callisto flyby scheduled

On a third and final tour of duty in the Jovian system, JPL's dauntless Galileo spacecraft was scheduled on Friday, May 25 to make its closest pass yet to Jupiter's outermost large moon.

The orbiter was set to skim over Callisto at an altitude of about 123 kilometers, or 76 miles, at 4:24 a.m. PDT. If Callisto were the size of a baseball, that would be just a nickel's thickness away.

Mission managers expect the pull of the moon's gravity to alter Galileo's orbit around Jupiter. "The main reason we're flying so close to Callisto is to set up flybys of Io," said Galileo Project Manager DR. EILENE THEILIG. Io is an intensely volcanic moon closer to Jupiter that continually resurfaces itself with fiery eruptions.

Galileo will pass over polar regions of Io in August and October to help scientists determine if the seething and violent moon generates its own magnetic field. "Since we have to go close to Callisto anyway to get to Io, we'll take advantage of the opportunity for studying Callisto," said Project Scientist DR. TORRENCE JOHNSON.

Unlike the planet's other large moons, Callisto, which is about as big as the planet Mercury, appears to be inactive and still bears craters billions of years old.

"Callisto is sort of the ugly duckling of the moons, but it's the one we need to look at to get the bombardment history of the Jovian system," Johnson added. "The craters on Callisto are the visible record of what sizes of comets and other objects have pelted Jupiter and its moons with what frequency over the past 4 billion years."

For more information on the Callisto flyby and the overall Galileo mission, log on to <http://galileo.jpl.nasa.gov>.

### New JPL Web site debuts

To coincide with JPL's Open House last weekend, the Laboratory debuted an updated and redesigned Web site at <http://www.jpl.nasa.gov>.

In addition to highlighting news of JPL's missions and research, the site links to ongoing activities in the Lab's Earth, Solar System, Stars and Galaxies, and Technology theme areas, where feature stories on JPL engineers, scientists and technologists will appear periodically. An image and video archive is included within each theme area.

Other features include educational and fun activities for kids. Regularly

updated areas will be "Favorite Images" and "This Day in Space History."

JPL staff are welcome to submit their favorite space images to Senior Internet Producer SUSAN REICHLEY, manager of the site, for consideration. In addition, she said, "one of our goals is to create more videos, and we plan more Webcasts as well."

### Rideshare Program honored

JPL's Rideshare Program was recently recognized for its efforts by Southern California Rideshare, a regional organization chartered with promoting alternate modes of transportation.

JOHN MIRANDA, employee transportation coordinator, and DEAN OISBOID of Human Resources received an award in the Innovation category for conducting the Laboratory's annual average vehicle ridership survey electronically. In addition, JPL Vanpool #1 (originating from Orange County) also received an award for their tenacity and longevity in being one of the longest-running vanpools in Southern California. An awards ceremony was held May 2 at the Los Angeles Equestrian Center.

### Troy High takes second in nationals

The JPL-sponsored Troy High School (Fullerton) team, which won a regional competition in the National Science Bowl held on Lab in February, took second place overall in the national competition on May 7, scoring a science research trip to Australia this summer.

North Hollywood High School won the national competition.

Twelve teams from the original 61 competed at the Department of Energy competition in Washington, DC. Each of the 12 finalists received \$1,000 for their school's science department.

### Indian dance class starting at Caltech

A beginners' class in Indian dance is being organized at Caltech and JPL staff are welcome to attend.

Graduate student DEEPSHIKHA DATTA seeks students for the class, for which no previous dance experience is required. It will teach the basic movements of Odissi, an Indian classical dance form, as well as other dances.

The class will be held once a week and the timing will be fixed to either a weekday evening or a weekend morning, depending on which is convenient for most people.

For enrollment or other information, e-mail to [datta@its.caltech.edu](mailto:datta@its.caltech.edu).

# Special Events Calendar

### Ongoing Support Groups

Alcoholics Anonymous—Meetings are available. Call the Employee Assistance Program at ext. 4-3680 for time and location.

Codependents Anonymous—Meeting at noon every Wednesday. Call Occupational Health Services at ext. 4-3319.

End of Life Issues and Bereavement—Meets the second Monday of the month at noon. For location, call the Employee Assistance Program at ext. 4-3680.

Gay, Lesbian and Bisexual Support Group—Meets the first and third Fridays of the month at noon in Building 125-133. Call the Employee Assistance Program at ext. 4-3680 or Randy Herrera at ext. 3-0664.

Parent Support Group—Meets the third Thursday of the month at noon. For location, call the Employee Assistance Program at ext. 4-3680.

Senior Caregivers Support Group—Meets the first Tuesday of the month. For time and location, call the Employee Assistance Program at ext. 4-3680.

Fri., May 25; Sun., May 27

Piano Concerts—Caltech pianist-in-residence James Boyk will perform in Dabney Lounge at 8 p.m. Friday and at 2:30 p.m. Sunday. Admission is free. Call (626) 395-4652.

Thursday, May 31

JPL Golf Club—Meeting at noon in Building 306-302.

Friday, June 1

Ethics Training—Held from 1 to 2 p.m. in Building 180-101 and available to all personnel. A list of training ses-

sions is available online at <http://hr/et>. One-hour sessions are offered monthly or can be arranged for group presentations. Call Martha Avina, ext. 4-3154.

Saturday, June 2

"California Liver Walk 2001"—A team of JPL staff is being formed for participation or sponsorship in an event that seeks to raise dollars to help find a cure for hepatitis and other liver diseases. Held at Burton Chace Park in Marina del Rey. Call Holli Leonard, ext. 4-5589 or (818) 608-4287 or Sharon Maupin, ext. 3-0636.

Caltech Ballroom Dance Club—A free Ballroom, Latin, and Swing party will be held in Dabney Lounge from 8 p.m. to midnight. A free Salsa lesson will be offered at 8 p.m.

Tuesday, June 5

JPL Gamers Club—Meeting at noon in Building 301-227.

JPL Genealogy Club—Meeting at noon in Building 301-271.

Wednesday, June 6

Associated Retirees of JPL/Caltech Board—Meeting at 10 a.m. at the Caltech Credit Union, 528 Foothill Blvd., La Cañada.

Thursday, June 7

JPL Gun Club—Meeting at noon in Building 183-328.

JPL Stories—Jim Burke, the first Ranger project manager, will present "First to the Moon! Ranger and Luna" at 4 p.m. in the Library, west end of Building 111-104. He'll describe how the United States and the Soviets tried, failed and finally succeeded in the early days of the moon race. Call Teresa Bailey at ext. 4-9233.

## NOVA awards

The following employees received JPL's Notable Organizational Value Added (NOVA) awards in March:

Division 260: Richard Baumbach, Charlotte Breese, Glenn Campbell, Barbara Hesselgesser, Maria Kemerer, Jane Lee, Mark Massey.

Section 341: Kevin Barltrop, Rozita Belenky, Thomas Burk, Daniel Cervantes, Gabriella Garcia, Gene Hanover, Rod Hayden, Larry Hernandez, Mike Hughes, Allan Lee, Casper Sagoian, Valerie Ward.

Section 344: Nanor Avedikian, Donald Boyd, Thea Byrd, David Fuller, Sarkis Ganneyan, Loren Jones, Alan Lee, Carl Christian Liebe, Huy Luong, Thang Pham, Lori Slayton.

Section 354: Taguhi Arakelian, Xiaoqi Bao, Zensheu Chang.

Section 366: Thomas Boyce, Lawrence Hawley, Bryan Johnson, Norm Lamarra, Behshad Sedighi, Dheera Sharma, Li-Yu Sung.

Section 368: David Doody, Darrick Ohata, George Madrid Sr.

Section 388: Douglass Alexander, Charles Avis, Amy Culver, John Diehl, Julia Henricks, Hyun Lee, Shari Mayer, Barbara McGuffie, Thuy

Nguyen, Stephen Noland, Rajesh Patel, Alice Stanboli, Carol Stanley, Jan Yoshimizu.

Division 640: Teresa Bailey, Stephen Benskin, Jack Dawson, David Deats, William Edmiston, Eric Hines, Dave Klein, Carol Lachata, Elaine Lowrie, Robert Powers, Ed Sewall, Jean Stalrit, Fred Thibodeaux, Thara Tongvanit, Corinna Whitehurst, Thomas Wynne.

Division 660: Charles Boles. Contractors: Anwar Akhtar, Sam Chu, Corbin Miller, Robert Saul.

The following employees received NOVAs in April:

Section 313: Erik Bailey, Louise Hamlin, Otfried Liepack, Daniel Limonadi, Gerald Snyder, Jason Willis.

Section 323: Sherri Akbari.

Section 333: Javier Bautista, Mark Fiore, Arthur Freiley.

Section 386: Brett Ramaker.

Section 388: Rafael Alanis, David Hodges, Paul Johnston.

Section 642: Michael Wright.

Section 708: Karen Piggee. Contractors: Harry Beasor, Ariel Chua, Rigoberto Falcon, Brian Hewes, Michael Macloskey, Joseph Pangan, Eugenio Rodriguez.

## Service awards

The following JPL employees were recently honored for 20 or more years of service:

45 years: Robert Ryan.

40 years: Richard Denning, Nancy Short, Edward Smith, Larry Whitcanack.

35 years: David Fulton, Donald Germann, G. Joy Hodges, Donald Kurtz, Gloria Lawler, Hartwell Long, J.C. Mahoney, Dennis Ross, George Sweeney.

30 years: John Beckman, William Edmiston, John Ekelund, Daniel Erickson, Susan Foster, Adrian Hooke,

Pearline Johnson, Eunice Lau, Donald Lehr, Albert Nakata, Deanna Rowe, Ronald Steinkraus.

25 years: Kristine Blom, James Breckinridge, Marcoanto Chavez, Craig Cheetham, Katrina Evans, Carl Franck, Mary Kunstler, Thomas Lockhart, Thomas May, Timothy O'Donnell, Edward Wong, Bobbie Woo.

20 years: Beatriz Abu-Ata, Edmund Baroth, Juan Bautista, Leslie Berridge, Martin Buehler, Frank Carsey, Thomas Fouser, Mark James, Leslie Lowes, Edward Miller, Mary Sue O'Brien, James Okuno, Don Potter, Michael Rafferty, Theresa Rafter, John Repar, Laif Swanson, Elsa Waters, Richard Weidner, Donald Wilson.

## Interns named for software architect program



Dr. Elizabeth McKenney



Marek Tuszynski



Scott Morgan



Dr. Yu-Wen Tung

JPL's Center for Space Mission Information and Software Systems has announced the participants selected for the 2001 Software Architect Program. They are Dr. Elizabeth McKenney (Section 383), Scott Morgan (333), and Marek Tuszynski (345). Dr. Yu-Wen Tung (368) is an alternate.

The program is a half-time, one-year paid internship intended to help train JPL's next generation of software architects, system engineers and managers. Participants will receive instruction in concepts, principles and state-of-the-art methods in software architectures. On-the-job training and mentoring will take place in a variety of organizations to expose participants to JPL software architectures and mission domains and to foster communication and cooperation among them.

McKenney is currently software lead for System Testbed 3 of the Space Interferometry Mission. She has a Ph.D. from Caltech in mechanical engineering, and has been with JPL for five years.

Morgan is project element manager for the DSN Antenna Renewal and Sustaining work area, and a technical group supervisor. He has a master's degree in computer engineering from USC, and has been with JPL since 1984.

Tuszynski is software lead for the real-time control subsystem for the Space Interferometry Mission. He has a master's degree in applied mathematics from Cal State Northridge, and is a 13-year JPL veteran.

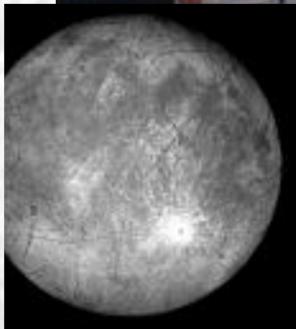
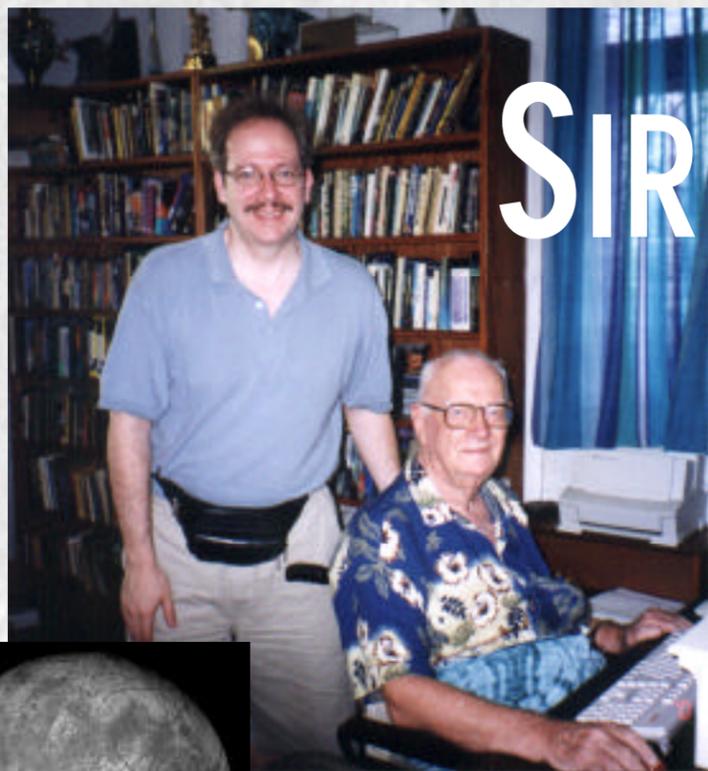
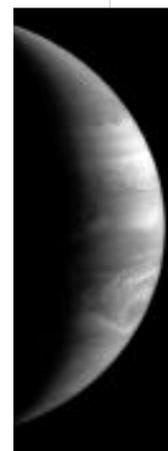
Tung is a software task lead on the Mission Data System. Tung has a Ph.D. in computer engineering from USC, and has been with JPL for 10 years.

Conversations with

# SIR ARTHUR C. CLARKE

*Dr. Richard Doyle, manager of JPL's Information Technologies and Software Systems Division (360), recently visited celebrated science fiction author Sir Arthur C. Clarke at Clarke's home in Colombo, Sri Lanka. The author of more than 60 books, the 83-year-old Clarke is perhaps best known for the classic 2001: A Space Odyssey. Doyle had been corresponding with Clarke for about five years, and the opportunity to visit him grew out of that correspondence. Doyle shares the experience with Universe.*

Author of  
2001: A  
Space  
Odyssey  
visits  
with JPL's  
Doyle



**QUESTION** *How did your opportunity to visit Clarke come about?*

**A** The initial contact goes back to late 1996, when Guy Man and I were organizing a workshop on Highly Autonomous Systems. The timing was such that our workshop lined up with birthday celebrations for HAL, the intelligent computer from 2001. This led naturally to the idea that Arthur would be the perfect speaker for our symposium. We found a way to contact him over the Web, and he graciously agreed. Even then, he was restricting his travel, but he provided a videotaped banquet speech that was a huge hit. Ever since then, I've had the privilege to keep up a correspondence with him.

**QUESTION** *What were some topics from your correspondence?*

**A:** Arthur is very aware of and very supportive of NASA activities, and has a particular interest in the Jovian moon Europa. Sometimes he would have a thought or question about a new Europa or Mars image or other result from one of our missions, and I would refer him to scientists here or elsewhere, or to our mission people. Occasionally, I would help one of our flight projects make contact with him so that they could include him in an activity they were planning. Galileo and Cassini have both worked with him recently. I came to understand how much Arthur values having these contact points and that he was getting as much out of our correspondence as I was. He's certainly known many people at JPL over the years, all the way up to our Directors, but he's had fewer contact points here in recent years. I felt good knowing I was helping to bridge a gap for him. Like a lot of JPLers, I grew up reading his science fiction. More than that, his work influenced me in ultimately choosing space exploration as a career.

**QUESTION** *What led up to your visit?*

**A** Little by little, I became connected with a network of people who correspond with Arthur, some of whom have visited him in Sri Lanka, and I learned how that would work. It became clear that Arthur very much enjoys these visits. So it simply came down to picking some dates, and just making it happen. Arthur has a steady stream of visitors from all over the world. Just to give a couple of examples, Buzz Aldrin was there a week or two before I was, and while I was there, a production company showed up to film him for his presentation at this year's Academy Awards. It was amusing to travel almost all the way around the world and then find Hollywood in Sri Lanka.

**QUESTION** *How long were you in Sri Lanka and how much time did you spend with Arthur?*

**A** I was there for a total of eight days, and spent parts of four days with him.

**QUESTION** *What did you talk about?*

**A** It was an amazing potpourri of topics, very wide-ranging, and very stimulating. We spent some time going through some of the

recent Mars Global Surveyor images. There is the provocative "sandworm" image, showing an elongated, seemingly translucent tube that even exhibits specular reflection. One theory I've heard about this structure is that it may be an analogue of a lava tube, formed from rapidly flowing water underground, which froze on the outside while water continued to flow inside. Later, erosion exposed the tube to the surface, now emptied. The "worm" even shows segments, which are probably just sand dune patterns. I'm no planetary geologist, and I may have garbled that description, hopefully not too badly. We also talked about extremophiles, and implications for the search for life off our planet. It was fun to speculate that simple life at least may turn out to be the rule, rather than the exception, wherever the basic ingredients of life are found, perhaps even in our solar system. We talked about, at the time, the imminent splashdown of Mir. We bounced around ideas for science fiction stories, which was great fun for me. I learned about plans to fly his DNA into space. I could go on and on.

**QUESTION** *What is a day in the life of Arthur C. Clarke like?*

**A** From what I could see, each day is quite full. He has many projects going on and correspondents and connections all around the world. He conducts all his own e-mail correspondence, not an easy task. He has several staff to support him. Virtually every day he receives a visitor. He stays very informed both through the Internet and via BBC broadcasts, on television and short-wave radio. He takes a rest after lunch. Once, I was invited to simply hang out in his office while he rested. That too was an amazing experience, just perusing his bookshelves. A couple of volumes that stick out in my memory are the original works of Percival Lowell on Mars, drawings of canals and all. Arthur usually takes a short driving tour through Colombo in the late afternoon. He owns a red Mercedes, which I came to understand is something of an icon in the city. He is most definitely the First Citizen of Sri Lanka. Everyone loves and honors him.

**QUESTION** *What is Sri Lanka like?*

**A** A very exotic place. There is a civil war going on, but I never felt threatened, although there is intense security all around the country, particularly at the airport. I've been to other places where I felt more at risk; Kashmir, for example. I had the opportunity to do some touring of Sri Lanka while I was there and it is a beautiful country. I visited an ancient city called Sigiriya with some very impressive engineering and technology from about 500 A.D., some of which is still operating. This place was an inspiration for Arthur's book *The Fountains of Paradise*. I also visited an elephant orphanage—think of the Wildlife Waystation [in the Angeles National Forest], but for elephants only. I also visited a famous Buddhist temple in Kandy, a botanical garden, and the tea country, which is truly breathtaking. I can see how the island had the name Serendip, referring to the unexpected good fortune of finding a paradise along the otherwise arduous eastern sea routes.

**QUESTION** *Would you visit Arthur again?*

**A** I'd love to, and I believe Arthur would be happy to receive other visitors from JPL. He is a very gracious host.

**"Like a lot of JPLers, I grew up reading his science fiction. More than that, his work influenced me in ultimately choosing space exploration as a career."**

— Dr. Richard Doyle,  
on Arthur C. Clarke

# JPLers run, walk for cancer research



Members of JPL's Advisory Council for Women led other JPLers in a May 12 fundraising effort to raise awareness and critical funds for research on breast and ovarian cancer.

More than 80 Laboratory staff members, families and friends participated in the Revlon Run/Walk for Women, a five-kilometer (three-mile) event held in the USC area that began and ended at the Los Angeles Memorial Coliseum.

Overall, about 60,000 people participated in the L.A. event. ACW member and participant Deborah Watson of Section 261 noted that past Revlon Run/Walks in Los Angeles and New York have raised more than \$17 million for cancer research, counseling and outreach programs. "JPL's participation in the run/walk is a testament to the caring of its employees to give of themselves to fight this disease," she said.

Watson said some JPL participants had personal connections to the fight against breast cancer. Some sported signs that included statements such as "12-year survivor" and "I'm walking in support of my mom."

## Passings

**ALLEN WOLFE**, 77, who retired as chief engineer for flight projects in 1989 after a 37-year JPL career, died of cardiac arrest May 7.

Wolfe served as payload instrumentation engineer on Explorer 1, spacecraft system manager for the Ranger lunar program, orbiter manager for the Viking spacecraft to Mars and deputy project manager for the Galileo mission. He was also a member of the Cassini review board.

Wolfe received NASA's Outstanding Leadership and Exceptional Service medals as well as the agency's Public Service Award.

He is survived by his wife, Georgiana, daughters Kathy and Terri, and grandsons Byron and Keith. Services were held May 12 at St. George's Episcopal Church in La Cañada.



Allen Wolfe

## Classifieds

### For Sale

BIKE, mountain, 21 spd., Shimano equipped, extra height handlebars, nearly new, used little, cost \$135 new, sacrifice \$85. 661/297-0219.

BIKE, Royce Union BMX, orange & blue, ORYG brakes, great cond., \$90. 626/797-3202, Andy.

BIKE, Schwinn Frontier, black, good cond., Shimano brakes, \$50. 626/797-3202, Andy.

BUNKBED, twin, red metal, vg cond., \$75. 909/621-3203.

CAMPSITE at El Capitan, north of Santa Barbara, June 1-3, \$30. 956-1744, Barbara.

COMPUTER, 1000 MHz AMD T-bird processor, 30GB HD, 128MB PC133 SDRAM, ATI Xpert 2000 32MB video, built-in sound, 56K modem, 52x CD-ROM/floppy dr., ATX case, 300W power supply, Win98 OS; tons of Adobe, Microsoft, Macromedia software; bare system only: \$900. 626/797-3813 eves., Benjie, or e-mail benjield@hotm.com.

COLLECTIBLES: dinner plates, vintage 1945, six 10 1/2 inch, Gladding-McBean, Franciscan-ware, apple pattern, \$110; pipe threading equip., Armstrong, 3 dies, \$35; reflex speaker enclosure, very lg., finished blond base, 4.5 cu. ft. with 12-inch speaker, \$38. 626/793-1895.

COMPUTER HUTCH, compact, \$25. 352-3588.

COMPUTER TABLE, "IKEA Krister," lacquered steel, requires assembly, W 34 5/8 x D 33 1/8 x H 31 1/8" (88 x 84 x 79 cm), brand-new cond., \$50/obo. 626/379-4509, Jeff.

COMPUTER TABLE, rosewood, w/keyboard tray, \$50; SOFA, dk. green, sm. floral print, gd. cond., \$50; LADDER, wooden, \$15. 626/355-5662.

DESK/CHAIR, antique mahogany, rolltop, \$1,500; TABLES, 2 custom, rod iron indoor/outdoor, w/heavy glass top, \$2,500; COUCH, sectional, beige, almost new, \$250; COFFEE TABLE, \$75; TABLES, 4 stacked, \$200; BAR CART, \$150; TOYS, child's bike, etc, best offer. 248-8853.

DISHWASHER, Sears Kenmore, old but works perfectly, pick up in Canyon Country, \$75. 653-2000, Stan.

DRYER, Whirlpool, 3 cycle, end-of-cycle signal, hvv duty, 7.3 cu. ft., perfect for student/condo or apt., energy saver, \$50/obo. 772-9623, after 6 p.m., Tuan.

EXERCISER, Health Rider, complete with owner's manual, video instructions and video workouts, exc. cond., \$250/obo. 949/348-8047.

FURNITURE: wrought iron kitch. table w/glass top + 4 matching chairs, 2 yrs. old, perf. cond., \$350/obo; 2 sm. wooden (oak?) shelves, \$30/ea.; 2 night stands, \$30 ea./obo. 626/792-2216.

OLYMPICS TICKETS, 2002 Salt Lake, call for events & price details. 562/420-2313.

OVEN, convection by Décor, self cleaning, electric 220V, white, wall mount, \$150/obo. 626/584-9632.

OVEN, convection, GE Profile, under counter or in wall, 30" wide, 220V, exc. cond., pick up in Canyon Country, \$450. 653-2000, Stan.

TABLE, dinette, square glass top, 5' x 5' w/metal feet and 4 matching chairs, \$750/obo; BAR STOOLS, four matching, metal frame, all in superb condition, \$350/obo. 626/398-3480.

TABLE, kitch. set, Ethan Allen, maple, 48" dia., + 2 leaves & 4 captain's chairs, \$300. 626/355-0989.

WASHER/DRYER, large, Kenmore, bought last year, great cond., almost brand new, \$600/obo. 353-9859, Sara.

WASHER/DRYER, Kenmore electric, good cond., \$150. 909/931-9433.

WASHER, GE, \$150; DRYER, \$150, similar but do not match exactly, white. 790-6185.

WASHER, Whirlpool, convertible, 2 spd., 6 cycle, 6.8 cu. ft., perfect for student/condo, or apt. resident, hook-up to kitchen sink, energy saver, \$50/obo. 772-9623, 6 p.m., Tuan.

WINE RACK, black wrought iron, lockable, holds 60+ bottles in 18 x18" footprint, \$200. 626/281-2179, Mike.

alarm, alloy wheels, 5 new tires, \$7,500/obo. 323/655-5864.

'89 FORD Ranger XLT King Cab, w/camper shell, carpet kit, V6, 2.9 L eng., a/c, pwr. steering/windows/doors, tow pkg., am/fm/cass., c/c, tilt wheel, well maintained, exc. cond., 80K mi., \$4,300/obo. 626/791-7645.

'68 FORD Mustang, California Edition, 289, V8, 2-dr. coupe, in family for nearly 30 years, running condition, make offer. 626/577-7027.

'90 HONDA Accord, white w/burgundy inter., 4 dr., auto., gd cond., all pwr., alarm, 196K mi., must sell, \$5,500/obo. 388-8309, Jennifer.

'71 HONDA CL-350 motorcycle, 7,500 orig. mi., needs work, \$250/obo. 626/577-7027.

'87 HONDA LX, 125,000 miles, 5 spd., orig. owner, \$2,100. 626/791-1581.

'87 HONDA Civic, 2-door hatchback; '83 Accord, 2-door LX hatchback, both running, good basic transportation. 626/403-0446.

'96 JEEP Grand Cherokee Limited, 4 x 4, V8, loaded, 80K fwy. miles, tow package, char. gold, exc. cond., always garaged, non-smoker, \$12,900/obo. 957-5382.

'95 LEXUS Sport Coupe 400, 59,500 mi., Nakamichi stereo system with 12 CD changer, loaded, exc. cond., starting bid \$23,500. 626/821-9622.

'97 MAZDA Miata MX-5, 12,200 mi., Montego blue, black top & upholstery, a/c, alloy whls., pwr steering/windows/mirrors, leather whl., Eclipse am/fm/cd, Clifford alarm, exc. cond., especially rear window, alw. garaged, \$14,500. 626/304-0217, days or 626/578-0662, eves.

'90 MERCURY Sable, V6, 120,000 mi., loaded, good shape, \$1,400. 626/791-1581.

'75 MGB, smog exempt, runs, good top; needs engine, brake, body work; happy car needs happy home, \$800/obo. 818/645-2489 or 310/823-2663.

'85 Motorhome, 21', class C, Chevy 350, very clean, new upholstery, low mi., rebuilt eng., new tires/roof/dash a/c, refrig, stove, microwave, etc., must see, \$9,500/obo. 248-7097.

SPARE TIRE for Jeep Cherokee, brand new Michelin P215/70R15, mounted on Laredo wheel w/tan cover, \$125. 626/281-2179, Mike.

STORAGE BIN, Yakima rooftop for car/truck, \$100. 909/931-9433.

'89 SUBARU GL, gd. cond., just passed smog chk., starting price \$2,000/obo. 626/792-2216.

'96 TOYOTA Previa, good condition, 108,000 miles, my family has outgrown it, \$12,000/obo. 541-0131, Gary or Sue.

WHEELS, 4 alloy, "Baja" type, 15" x 8", 6 bolt for 4 x 4 mini-pickup, \$100. 909/624-7392.

'86 VW Golf, 5 spd., runs great, exc. gas mileage, 152K mi., \$1,100/obo. 626/683-7018.

### Wanted

HOUSE OR APARTMENT for rent, 1 or 2 bdrms., open to variety of areas within about a 20-mile radius of JPL. 626/345-1798, LaSonta.

HOUSE RENTAL for visiting scientist from Germany with family, seeks furnished, close to JPL, Pasadena, Arcadia, Monrovia, from 7/16 to 8/19/01. 248-8591.

HOUSEMATE to share 3 bd., 2 ba. house in San Gabriel, an easy 9 miles to JPL, \$500, all amenities included. 626/281-2179, Mike.

HOUSING, furnished, for visiting faculty (singles, couples, families) for 10 weeks, June-Aug.; contact Petra in the Educational Affairs Office at ext. 4-0726.

RV, to rent for summer trip to Mt. Rushmore, family of 5 + dog, need for 11-12 days, prefer 25+ feet, class C or class A, newer homes preferred, mechanical breakdown insurance a must. 661/297-0219.

SHOPPERS: Elks Ladies Auxiliary sponsors "Shop Till You Drop," May 30, 5:30-8:30 p.m., Arcadia Lodge, 27 W. Huntington Dr., no admission; handbags, scarves, jewelry, summer fashions from Nordstrom, Macy's, Robinson's-May, 50-70% off store prices, sz. 4-24, proceeds to disabled children in Calif./Hawaii.

SPACE INFORMATION/memorabilia from U.S. & other countries, past & present. 790-8523, Marc Rayman.

VOLLEYBALL PLAYERS, coed, all levels of play, Tues. nights 8-10 at Eagle Rock High School, \$3/night. 956-1744, Barbara.

WINNEBAGO Rialta, 1998-2002. 626/850-4378.

Lost & Found

Lost: FISHING HAT, during Open House, Sun., May 20, betw. 11 a.m.-2:30 p.m.; Tommy Hiffilger, reversible; colors: tan on one side, red on the other. 626/850-4378, Barbara.

Found: JACKET, Building 180, 9th floor, call to describe/claim. Ext. 3-1940, Vi.

Free

COMPUTER, Mac Plus, includes printer, must pick up. 352-3588.

DOG, female shepherd mix, friendly, 1 yr. old, knows many commands, black/brn/white. 909/598-9734, Ralph.

For Rent

ALTADENA, furn. house 2 miles/JPL; 2 bd., den/possible 3rd bedroom, f/p, granite kitch.,

a/c; park-like setting, quiet st.; gardener, water, trash incl.; avail. June 22 for 12 mo., \$1,400/mo. 626/798-0226.

ALTADENA, lg. furn. room, w/cable TV, priv. ba., priv. off-street parking, also share 3 bd., 2 1/2 ba. quiet hilltop house, central a/c, kitchen with d/w, pool, lg. garden, patio, view, 11 min. to JPL, avail. by 7/1, only to smoking-tolerant, JPL empl./contr., temp. OK, \$485, incl. util. 626/794-1050, after 7 p.m., Harry.

EAST PASADENA apt., 1 bd., .75 ba., 1 carport & street pkg., incl. water/trash, no smoke/pets, carpet, blinds, stove, f/p, balcony, \$950 + \$950 sec. dep., avail. 6/1, 1-yr. lease. 949/481-4982.

PASADENA condo, short-term lease (3 to 12 mo.), 1,000 sq. ft., fully furn. 1 bd., 1 block from Caltech, patio, laundry, shared garage, avail. 7/1, \$1,300 (util. incl). 626/285-0730.

PASADENA, room in a furn. 2-bd. apt., near Lake Ave. district, treetop and mtv. view surroundings, tree-lined st., nr. shopping, PCC, Caltech; underground secured parking, laundry facility, pool, util. paid, female pre-ferred, \$500. 626/796-8982, or 626/399-6072, cell.

SOUTH PASADENA, completely furnished studio apt, 1718 Huntington Dr. between Milan and Marengo, utilities paid, car space, a/c, one level, laundry, no pets, non-smoker \$750. 626/792-9053, Ray.

SYLMAR, spacious 4 bd., 3.5 ba., + den & bonus rm., gated community w/pool, rent to own, mtv. view, 20 mi. from JPL, 2,500 sq. ft., fenced & landscaped, \$1,995. 626/584-6526, Fred.

### Real Estate

EAGLE ROCK, funicular access to very private, beautiful 1938 architect's home, 3 bd., 2 ba., 1,835 sq. ft., on about an acre lot, views from the Eagle Rock, over downtown to Griffith Pk. with a glimpse of the ocean, 10 min. to JPL, more details at www.hightowerpress.com, \$465,000. 323/547-4920 for appointment.

MONTEROSE, 5 min./JPL, 3-level townhouse, 8 yrs. old, 1,900 sq. ft., 3 + 2.5, incl. lg. master suite, Jacz. tub, very lg. gourm. kitch. w/granite counters + breakfast nook, 2 sky lites, alarm syst., lg. 2-car attached gar., exc. view + exc. neighborhood, new roof, \$319,000. 249-0453.

### Vacation Rentals

BIG BEAR cabin, quiet area near village, 2 bd., sleeps 8, completely furnished, \$75/night. 249-8515.

BIG BEAR LAKEFRONT, luxury townhome, 2 decks, tennis, pool/spa, beautiful master bd. suite, slps. 6. 949/786-6548.

CAMBRIA, ocean front house, sleeps up to 4, excellent view. 248-8853.

HAWAII, Kona, ocean front on Keauhou Bay, house and guest house comfortably sleep 6, 3 bd., 2 ba., rustic, relaxing and beautiful, swimming, snorkeling, fishing, spectacular view, near restaurants, golf and other attractions. 626/584-9632.

HAWAII, Maui condo, NW coast on beach w/ocean view, 25 ft. fr. surf, 1 bd. w/loft, compl. furn., phone, color TV, VCR, microwave, d/w, pool, priv. lanai, slps. 4, 4/15-12/14 \$105/nt./2, 12/15-4/14 \$120/nt/2, \$10/nt. add'l person. 949/348-8047.

LAKE ARROWHEAD house, small 4 bd., 2.5 ba., slps 10, quiet, secluded, relaxing, woody Cedar Glen area, www.highcountrysrents.com/cedar\_run.html for pics/rates, JPLers book directly w/owner for 2 weekends get 1 + cleaning fees, \$370/weekend. 626/403-0446, owner.

MAMMOTH, Chamonix condo, 2 bd., 2 full ba., slps. 6, fully eqpd elec. kitch. incl. microwave & extras, f/p & wood, color TV/VCR, FM stereo, pool/sun, play & BBQ areas, o/d Jacz., game, rec., laundry rms., conv. to hiking, lifts, shops, spec. events, daily/weekly rates. 249-8524.

MAMMOTH, Courchevel, fully eqpd unit, 2 bd., 2 ba., slps 6, summer rates for summer activities, fishing, mtv. biking, hiking. 661/255-7958.

MAMMOTH, Snowcreek, 2 bd., 2 ba., + loft, slps 6-8, fully eqpd elec. kitch. incl. microwave, d/w, cable TV, VCR, phone, balcony w/view to mtns., Jacz., sauna, streams, fishponds, close to Mammoth Creek, JPL disc. 626/798-9222 or 626/794-0455.

OCEANSIDE, on the sand, charming 1-bd. condo, panoramic view, walk to pier or harbor, pool, spa, game rm., sleeps 4. 949/786-6548.

OCEANSIDE condo, fully furn., 2 bd., 2 ba., f/p, full kitch.; quiet, relaxing, beautiful beach-side setting.; BBQ, pool, spa, game rm, great ocean view, easy walk to pier/restaur., sleeps 6, 2-nt min.; avail. weekly or monthly. 909/981-7492, Jim or Darlene or e-mail dfhaug@yahoo.com.

PACIFIC GROVE hse, 3 bd., 2 ba., f/p, cable, TV/VCR, stereo/CD, well-eqpd kitch. w/microv., beaut. furn, close to golf, bches, 17 mile Dr., Aquarium, Cannery Row, JPL discnt. 626/441-3265.

ROSARITO BEACH condo, 2 bd., 2 ba., ocean view, pool, tennis, short walk to beach on priv. rd., 18-hole golf course 6 mi. away, priv. secure parking. 626/794-3906.

SANTA FE, N.M.: escape L.A. for the summer, fully furnished home avail. 6/15-9/15, \$1,600/mo. 626/794-6142.

Editor

Mark Whalen

Design & Layout

Adriane Jach, Audrey Riethel/Design Services

Chief Photographer

Bob Brown/Photo Lab

Advertising

Susan Braunheim-Kalogerakos

Universe is published every other Friday by the Office of Communications and Education of the Jet Propulsion Laboratory, 4800 Oak Grove Drive, Pasadena, CA 91109.

For change of address, contact your section office (on-Lab personnel) or Xerox Business Services, (626) 844-4102 (retirees and others).

Notice to Advertisers

Advertising is available for JPL and Caltech employees, contractors and retirees and their families. No more than two ads of up to 60 words each will be published for each advertiser. Items may be combined within one submission. Ads must be submitted on ad cards, available at the ERC and the Universe office, Bldg. 186-118, or via e-mail to universe@jpl.nasa.gov.

Ads are due at 2 p.m. on the Monday after publication for the following issue.

All housing and vehicle advertisements require that the qualifying person(s) placing the ad be listed as an owner on the ownership documents.

Retirees

The following employees retired in May:

Donald Waggle, 45 years, Section 356; George Pace, 39 years, Section 410; William Charlan, 38 years, Section 341; Wesley Menard, 38 years, Section 350; Leonard Efron, 37 years, Section 312; William O'Neil, 37 years, Section 503; Marie Slonski, 34 years, Section 314; Johnny Freeman, 32 years, Section 413; Paul Swanson, 26 years, Section 426; Ruben Gutierrez, 22 years, Section 387; Fred Gangloff, 15 years, Section 314; Kent Wayner, 13 years, Section 357.

Letters

My family and I would like to say thank you to my JPL friends and co-workers for their prayers, cards, expression of sympathy and generous donation upon the death of my father, Samuel Murdock.

Robert and Larryssa Murdock

I would like to thank all of my friends and co-workers who have supported me during the long illness and eventual home-going of my mother, Elaine Akins. Your thoughts and kindness have all been very much appreciated. Thank all of you also for the donation made in memory of my mother to the Scleroderma Foundation. Perhaps, someday, we can find a cure for this unforgiving and deadly disease. Thanks also to the ERC for the beautiful plant.

Susan Argenio

I would like to thank Section 351 for the lovely baby shower and all the generous gifts. Your thoughtfulness is very much appreciated!

Nancy Chiang

Al Hibbs, a renowned leader through JPL's early development years and later the national spokesman for JPL through its many space projects, and currently a member and spokesman for the retirees hospital project (VPMA), unfortunately fell and suffered a light concussion. He is well but weak and recuperating at Huntington Hospital for a few weeks. Friends at JPL and the retiree groups all wish him a speedy recovery.

VPMA team

Classified ads will be available the day before Universe is published, at http://www.jpl.nasa.gov/dailyplanet

JPL's new online news source

Real Estate

Vacation Rentals

Wanted

Lost & Found

Free

For Rent

Retirees

Letters

Notice to Advertisers

Classified ads will be available the day before Universe is published, at http://www.jpl.nasa.gov/dailyplanet

JPL's new online news source

Real Estate

Vacation Rentals

Wanted

Lost & Found

Free

For Rent

Retirees

Letters

Notice to Advertisers

Classified ads will be available the day before Universe is published, at http://www.jpl.nasa.gov/dailyplanet

JPL's new online news source

Real Estate

Vacation Rentals

Wanted

Lost & Found

Free

For Rent

Retirees